

In re Appln. of HENRI LOUIS DREAN
Application No. ~~Unassigned~~ 10/827,312

The invention also concerns a process for the treatment of a gaseous medium containing volatile organic compounds, consisting of directing a flow of said gaseous medium over a porous material according to the invention, to bring about adsorption of this flow which penetrates the ~~porosities~~ pores and the cavities of the material, ~~then absorption of said flow,~~ in the process of which a chemical reaction occurs between the volatile organic compounds of ~~said~~ the flow and the material itself, to transform the volatile organic compounds into nontoxic gases, particularly CO₂ and/or SO₂.

Amendments to the paragraph beginning at page 2, line 18:

The process according to the invention is more effective when the porous material according to the invention presents a very high number of ~~porosities~~ pores and cavities which ~~allows~~ allow diffusion of the gaseous flow throughout the material with a large specific surface. The chemical transformation of the gas flow is favored by the relatively long contact time between the gas flow and the material when the latter is penetrated by the flow.

Amendments to the paragraph beginning at page 3, line 8:

-applying a pretreatment of the base constituent impregnated with ~~said~~ the solution by mixing it at a first pre-determined speed to create a porous structure,

Amendments to the paragraph beginning at page 3, line 15:

-mixing ~~said~~ the gel with complementary products comprising a solution with a strong oxido-reductive potential representing about 10% of the total volume, a mixture of carbon and alumina representing about 12 to 15% of the total volume and calcium sulfate representing about 2% of the total volume

Amendments to the paragraph beginning at page 4, line 3:

It is preferable, at the time of pretreatment, for the process to ~~consist of carrying~~ carry out another mixing operation at a third speed lower than the first and second speeds, to enlarge the cavities and porosities of the resulting structure.

Amendments to the paragraph beginning at page 9, line 1:

Within the rotor 211, there are an external chamber 230 and an internal chamber 231, separated by a ~~barrel-shaped~~ barrel-shaped element 232.

Amendments to the paragraph beginning at page 11, line 5:

At the time of this ultrasound treatment, the cavities and ~~porosities~~ pores present in the mixture 17 are emptied and dried by diffusion in the microporous structure, which causes reimpregnation of the material 18 obtained by microscopic diffusion of the impregnation liquid progressively constituted from the preimpregnator 1 to the means of ultrasound emission 305.

Amendments to the paragraph beginning at page 12, line 1:

As shown in Figure 6, this material comprises, in a peripheral volume 21 corresponding essentially to one-third the total volume of material, about 75 to 85% porosity ~~22, whose~~ including pores 22 having dimensions ~~are~~ between 10 and 20 Å and, in the remaining central volume 23, about 80 to 90% cavities 24 whose dimensions are between about 200 Å and 2 µm.

Amendments to the paragraph beginning at page 12, line 6:

Thus, since the ~~porosities~~ pores 22 empty into the cavities 24 of the central volume, a gaseous flow can penetrate into the material through the ~~porosities~~ pores 22 which constitute circulation routes, as far as cavities 24, in which the gaseous flow can swirl.

Amendments to the paragraph beginning at page 12, line 9:

Therefore, the material 20 adsorbs a significant flow of gas circulating in the ~~porosities~~ pores 22 and the cavities 24, then absorbs these gases by chemically transforming the volatile organic compounds present in this gas flow.

In re Appln. of HENRI LOUIS DREAN
Application No. Unassigned

Amendments to the paragraph beginning at page 12, line 20:

In addition, the large number of ~~porosities~~ pores and cavities inside the porous material results in a relatively long contact time between the gas flow and the porous material when this flow penetrates it. In particular, this contact time can be between 0.08 and 0.12 sec.

Delete the paragraph beginning at page 13, line 1 ²

MJD 6/28/06